



MSDS No.: 265
Revision No.: 002
Revision Date: 04/12/02
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MATERIAL SAFETY DATA SHEET

Product name: CF 116-14 Grip Filler Foam
Description: Single component urethane resin system with liquefied gas propellant
Supplier: Hilti, Inc. P.O. Box 21148, Tulsa, OK 74121
Emergency # (Chem-Trec.): 1 800 424 9300 (USA, PR, Virgin Islands, Canada); 001 703 527 3887 (other countries)

INGREDIENTS AND EXPOSURE LIMITS

Ingredients:	CAS Number:	TLV:	PEL:	STEL:
Urethane prepolymer	98585-03-6	NE	NE	NE
4,4' diphenylmethane diisocyanate (MDI)	00101-68-8	5 ppb	C: 20 ppb	NE
Dimethyl ether	00115-10-6	NE	NE	NE
1,1,1,2 tetrafluoroethane	00811-97-2	NE	NE	NE

Abbreviations: PEL = OSHA Permissible Exposure Limit. TLV = ACGIH Threshold Limit Value. These are 8 hour time-weighted averages unless otherwise indicated by "C" (Ceiling) or "STEL" (Short Term Exposure Limit). NE = None Established. NA = Not Applicable.

PHYSICAL DATA

Appearance:	Yellowish liquid / foam	Odor:	Sweet ethereal odor
Vapor Density: (air = 1)	> 1 (Polymer)	Vapor Pressure:	80 psi @ 68° F
Boiling Point:	Not determined	VOC Content:	62 g/l
Evaporation Rate:	< .1 (ether = 1)	Solubility in Water:	Not soluble
Specific Gravity:	1.12	pH:	Not determined

FIRE AND EXPLOSION HAZARD DATA

Flash Point:	< 0° F (propellants)	Flammable Limits:	LFL = 1.5%; UFL = 17%
Extinguishing Media:	CO ₂ , Dry Chemical, Foam		
Special Fire Fighting Procedures:	Wear full protective clothing. A self-contained breathing apparatus should be worn when fighting fires involving chemicals. Reacts (polymerizes) with water, which can cause a pressure build-up in the aerosol cans.		
Unusual Fire and Explosion Hazards:	Contents under pressure. Extremely flammable. Contains flammable propellants. Cans exposed to fire or direct heat can rupture from pressure build-up and be propelled through the air. See below for hazardous decomposition products.		

REACTIVITY DATA

Stability:	Reacts (i.e. expands at a ratio of > 40:1 to form a polyurethane foam) upon contact with air. Contact with moisture or water will also cause material to polymerize (non-violently).
Hazardous Polymerization:	Will not occur.
Incompatibility:	Alcohols, strong bases, alkali metal compounds. Reacts with water (nonviolently).
Decomposition Products:	When heated to temperatures above 450 C, thermal decomposition products can be released; e.g. CO, CO ₂ , HCN, NO _x .
Conditions to Avoid:	Excessive heat. Contact with air or moisture will cause foam to polymerize (cure).

HEALTH HAZARD DATA

Known Hazards:	Acute: Eye, skin, and respiratory irritation. Chronic: Sensitization.
Signs and Symptoms of Exposure:	Eyes: Product reacts with moisture and can adhere to the cornea. Skin: Contact can cause irritation and sensitization. Inhalation: Vapor generated when heated to temperatures > 100° F can cause irritation of the breathing tract. Some individuals can develop an allergic (asthmatic-like) response. Should this occur, immediately move to fresh air. Those individuals who develop an allergic reaction should avoid future use of this product.
Routes of Exposure:	Dermal. Inhalation.
Carcinogenicity:	No ingredients are classified as a carcinogen by IARC, NTP or OSHA.
Medical Conditions Aggravated by Exposure:	Eye, skin, and respiratory conditions.

EMERGENCY AND FIRST AID PROCEDURES

Eyes:	Immediately flush with plenty of water. Call a physician if symptoms occur.
Skin:	Adheres to skin; remove immediately with soap and warm water. If material has hardened, use MC 400 Hand Cleaner or a light mineral oil. If unable to remove, try an abrasive containing hand creme or buff off with a pumice stone.
Inhalation:	Move victim to fresh air. Call a physician if symptoms persist.
Ingestion:	If conscious, give plenty of water to drink. Do not induce vomiting unless directed by a physician. Contact a physician immediately. <u>Never</u> give anything by mouth to an unconscious person.
Other:	Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure.

CONTROL MEASURES AND PERSONAL PROTECTIVE EQUIPMENT

Ventilation:	General (natural or mechanically induced fresh air movements).
Eye Protection:	Goggles recommended. Safety glasses with side shields as a minimum.
Skin Protection:	Cotton gloves recommended. Avoid contact with the skin.
Respiratory Protection:	Not normally required. If MDI concentrations exceed recommended levels, a supplied air respirator is required.

PRECAUTIONS FOR SAFE HANDLING AND USE

Handling and Storing Precautions:	Do not allow contact with eyes and skin. Material will adhere to the skin. For industrial use only. Keep away from children. Contents under pressure. Extremely flammable. Do not apply direct heat to the cans. Before using, remove ignition sources such as flames or equipment/tools that generate sparks. Store in a cool dry place. Do not store in direct sunlight. Keep from freezing. Store between 41° and 77° F (5° to 25° C). Storage classifications: NFPA = Level 3; OSHA = Class 1A.
Spill Procedures:	Material will polymerize (cure) upon contact with air/moisture. Allow product to harden; then remove for disposal. Material is non-hazardous once cured.

REGULATORY INFORMATION

Hazard Communication:	This MSDS has been prepared in accordance with the federal OSHA Hazard Communication Standard. 29 CFR 1910.1200.
HMIS Codes:	Health 2, Flammability 3, Reactivity 1, PPE B (Goggles, Gloves)
DOT Shipping Name:	Consumer Commodity, ORM-D
IATA / ICAO Shipping Name:	Aerosols, flammable, Class 2.1, UN 1950
TSCA Inventory Status:	Chemical components listed on TSCA inventory.
SARA Title III, Section 313:	This product contains 4-7% 4, 4' diphenylmethane diisocyanate (101-68-8) which is subject to reporting under Section 313 of SARA Title III (40 CFR Part 372).
EPA Waste Code(s):	D001, D003
Waste Disposal Methods:	Consult with regulatory agencies or your corporate personnel for disposal methods that comply with local, state, and federal safety, health and environmental regulations.

CONTACTS

Customer Service:	1 800 879 8000	Technical Service:	1 800 879 8000
Health / Safety:	1 800 879 6000	Jerry Metcalf	(x6704)
Emergency # (Chem-Trec):	1 800 424 9300 (USA, PR, Virgin Islands, Canada); 001 703 527 3887 (other countries)		

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